Abstract:

The Northern Middle Lobe of Centaurus A: Circumgalactic Gas in a Starburst Wind

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We present deep ultraviolet (GALEX), radio continuum (VLA) and H-alpha (Magellan) images of the circumgalactic medium around Centaurus A (NGC5128). We focus on the Northern Middle Lobe (NML), a region extending more than 50kpc beyond the galaxy and known to host a collection of striking phenomena: emission line filaments, recent star formation, disrupted HI/molecular gas streams, and short-lived X-ray clouds. Far UV emission is tightly correlated with H-alpha emission for more than 50kpc, and loosely associated with a filament of X-ray clouds and with the radio continuum emission. The radio emission in the NML region does not appear to be an extension of the inner radio jet (<10kpc) or a typical radio lobe. We speculate that the "weather" seen in the NML region is a short-lived phenomenon, caused by an outflow encountering cool gas deposited by one of the recent merger/encounter events which have characterized the history of NGC5128.